**Amendments to the Claims:**

This listing of claims will replace all prior versions and listings of the claims in the application:

**Listing of Claims:**

1. (currently amended) A method for the diagnosis of susceptibility to diabetes in an individual comprising the step of

determining the expression pattern in the adipose tissue of the individual of any of the genes selected from the group consisting of the gene encoding add1/SREBP, ~~aa667872 (similar to ubiquinol-cytochrome c reductase core protein 2)~~, the gene encoding cytochrome c oxidase subunit VIIa, and the gene encoding stearoyl-CoA desaturase, to determine if the individual has susceptibility to diabetic disease, and

diagnosing the individual as susceptible to diabetes if the expression of all of these genes is decreased as compared to other non-diabetic individuals.

2. - 3. (Cancelled)

4. (Withdrawn) A method for the diagnosis of diabetes in and individual comprising the step of determining the expression pattern in the adipose tissue of the individual of at least four genes, the four genes selected from at least four of the gene groupings listed on Table 1 or Table 2.

5. (currently amended) A method for the diagnosis of predisposition to diabetes in an individual comprising the steps of

taking a sample of adipose tissue from the individual; and

determining the expression pattern of a gene in the adipose tissue of the individual to determine if the individual has a predisposition to diabetic disease, the gene being selected from ~~selected from~~ the group consisting of the gene encoding add1/SREBP, ~~aa667872 (similar to ubiquinol-cytochrome c reductase core protein 2)~~, the gene encoding cytochrome c oxidase subunit VIIa, and the gene encoding stearoyl-CoA desaturase, and

considering the individual as predisposed to diabetes if the expression pattern of all the genes is decreased in ~~gene being decrease~~ expression in the individual as compared to non-diabetic individuals.

6. (Cancelled)

7. (Withdrawn) A method as claimed in claim 4 wherein the genes are selected from at least four of the gene groupings in the group consisting of hormone and signal transduction genes, mitochondrial genes, lipid metabolism genes, transcription factor genes, secreted protein genes, cytoskeletal genes, lysosomal genes, immune/complement genes, cell proliferation genes, adipose-specific genes, and membrane protein genes.

8. (currently amended) A method for the diagnosis of susceptibility of an individual to diabetes comprising assaying the expression level of the gene encoding SREBP in the adipose tissue of the individual, the decreased level of expression of the gene encoding SREBP as compared to the level of expression in non-diabetic individuals being indicative of susceptibility to diabetes.

9. (Withdrawn) A method for the diagnosis of the development of insulin resistance comprising the steps of
determining the expression patterns in adipose tissue of the individual of the genes listed in Table 3 to determine if the individual has developed insulin resistance.

10. (Withdrawn) A method for the diagnosis of insulin resistance in an individual comprising the step of
determining the expression pattern in the adipose tissue of the individual of at least four of the genes listed in Table 3 those genes being determinative as to whether the individual has developed insulin resistance.

11. (currently amended)  A method for the diagnosis or prognosis of obesity, incipient obesity, or the transition from obese to diabetic, in an individual, comprising the step of

determining the expression pattern in the adipose tissue of the individual of any of the genes selected from the group consisting of the gene encoding add1/SREBP, aa667872 (similar to ubiquinol-cytochrome c reductase core protein 2), the gene encoding cytochrome c oxidase subunit VIIa, and the gene encoding stearoyl-CoA desaturase to determine if the individual has gene expression consistent with said diagnosis or prognosis, a decrease in expression of all those genes as compared with the expression levels of the genes in non-diabetic individuals being associated with the transition from obese to diabetic.